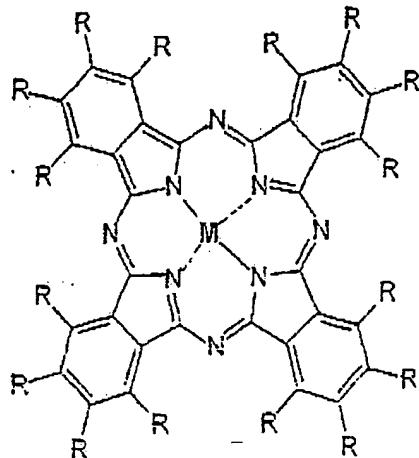


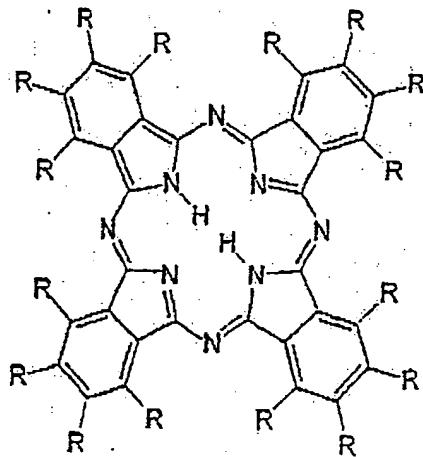
What is claimed is:

1. The use of a layer (HIL 1) composed of a hydrophobic, linearly or two-dimensionally polycyclic aromatic having from 3 to 12 ring structures including metal-containing or metal-free phthalocyanines, which have, as radical groups, -H and/or -F, alkyl groups, aryl groups and/or fluorinated hydrocarbons, as a barrier layer in or as an encapsulation of electrical components constructed with organic layers.
2. The use as claimed in claim 1, wherein the layer has been formed from a material from the group of anthracene, phenanthrene, tetracene, chrysene, pentacene, hexacene, perylene, triphenylene, coronene, m-naphthodianthracene, m-anthraceno-ditetracene, m-tetracenodipentacene, pyrene, benzopyrene, ovalene, violanthrene and derivatives of the aforementioned substances, with radical groups -H and/or -F, alkyl groups, aryl groups and/or fluorinated hydrocarbons.
3. The use as claimed in claim 1, wherein the layer is formed from a metal-containing phthalocyanine of the formula



5 where M = Cu, Zn, Fe, Mn, Co, Ni, V = O, Ti = O, and each R may be an -H and/or -F and/or an alkyl group and/or an aryl group and/or a fluorinated hydrocarbon.

4. The use as claimed in claim 1, wherein the layer is formed from a metal-free phthalocyanine of the formula



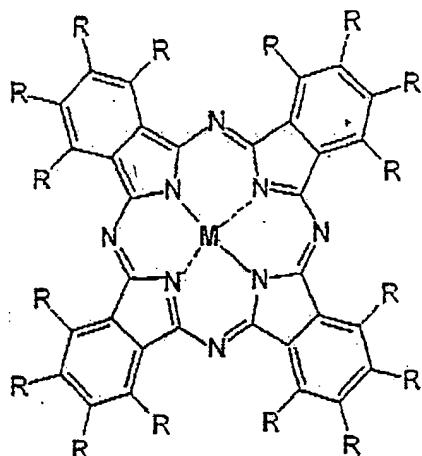
10 where M = Cu, Zn, Fe, Mn, Co, Ni, V = O, Ti = O, and each R may be an -H and/or -F and/or an alkyl group and/or an aryl group and/or a fluorinated hydrocarbon.

15 5. An organic light-emitting diode having a substrate (1), a first electrode (2) applied to the substrate (1), at least one electron-injecting and -transporting zone (EIL), at least one hole-injecting and -transporting zone (HTL, HIL) and a second electrode (3), characterized in that the hole-injecting and -transporting zone a layer (HIL 20 1) composed of polycyclic aromatics having linear or two-dimensional chains and from 3 to 12 ring structures including metal-containing or metal-free phthalocyanines, which have, as radical groups, -H and/or -F, alkyl groups, aryl groups

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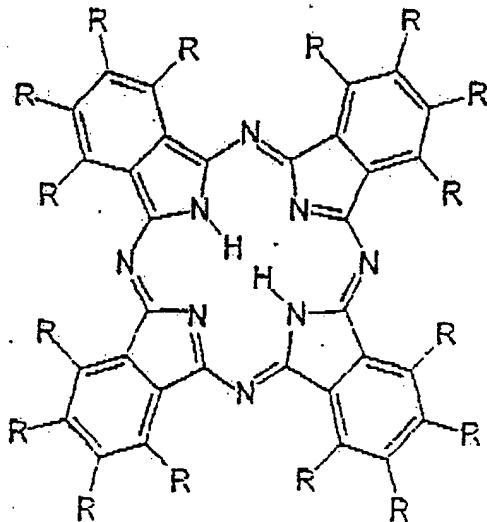
and/or fluorinated hydrocarbons, this layer (HIL 1) being in the form of an encapsulation layer.

6. An organic light-emitting diode having a substrate (1), a to the substrate (1), a cathode (2) applied to the substrate (1), at least one electron-injecting and -transporting zone (EIL), at least one hole-injecting and -transporting zone (HTL, HIL) and a light-transparent anode (3), characterized in that the electron-injecting and -transporting zone (EIL) is constructed with small molecules, and that it is adjoined toward the anode (3) by a layer composed of polycyclic aromatics having linear or two-dimensional chains and from 3 to 12 ring structures including metal-containing or metal-free phthalocyanines, which, as radical groups, -H and/or -F, alkyl groups, aryl groups and/or fluorinated hydrocarbons.
7. The organic light-emitting diode as claimed in claim 5 or 6, in which the material of the layer is formed from the group of anthracene, phenanthrene, tetracene, chrysene, pentacene, hexacene, perylene, triphenylene, coronene, m-naphthodianthracene, m-anthracenoditetracene, m-tetracenodipentacene, pyrene, benzopyrene, ovalene, violanthrene and derivatives of the aforementioned substances with radical groups -H and/or -F, alkyl groups, aryl groups and/or fluorinated hydrocarbons.
8. The organic light-emitting diode as claimed in claim 5 or 6, in which the layer is formed from a metal-containing phthalocyanine of the formula



where  $M = Cu, Zn, Fe, Mn, Co, Ni, V = O, Ti = O$ ,  
and each  $R$  may be an  $-H$  and/or  $-F$  and/or an alkyl  
group and/or an aryl group and/or a fluorinated  
hydrocarbon.

9. The organic light-emitting diode as claimed in  
claim 5 or 6, in which the layer is formed from a  
10 metal-free phthalocyanine of the formula



where  $M = Cu, Zn, Fe, Mn, Co, Ni, V = O, Ti = O$ ,  
and each  $R$  may be an  $-H$  and/or  $-F$  and/or an alkyl

group and/or an aryl group and/or a fluorinated hydrocarbon.

10. The organic light-emitting diode as claimed in one of claims 5 to 9, characterized in that a hole-injecting and -transporting polymer layer (HIL 2) applied from aqueous solution has been applied between the layer (HIL 1) and the second electrode (3).